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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/561,042	05/02/2006	Shigeyoshi Nishino	740709-546	1891

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EXAMINER	
MOORE, SUSANNA	

ART UNIT	PAPER NUMBER
1624	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

The period for reply continues to run FIVE MONTHS from the date of the final rejection. Any extension of time must be obtained by filing a petition under 37 CFR 1.136(a) accompanied by the appropriate fee. The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. A reply within the meaning of 37 CFR 1.113 or a request for a continued examination (RCE) in compliance with 37 CFR 1.114 must be timely filed to avoid abandonment of this application.

The amendment filed 9/28/2009 under 37 CFR 1.116 in reply to the final rejection has been considered but is not deemed to place the application in condition for allowance and will not be entered because: the proposed amendment is not deemed to place the application in better form for appeal by materially simplifying the issues for appeal.

The only pending rejection in the case is given below.

Claims 1, 3, 4, 6 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tobe et. al. (Bioorg. Med. Chem., 2003, 11,383-391) in view of Turner, Mayer et al., Chen et al., Science, USP 4138433, or USP 4081455.

The instant Application claims the reaction of compounds of formula (6), 2-aminobenzamides, with compounds of formula (4), trioxy formate acid derivatives (trimethylformate) and amine compounds of formula (2) in an organic solvent (polar solvent according to claim 3) with heating (range 40° C-200° C), according to claim 6, which results in the compounds of formula (7), quinazolin-4-ones.

The reference teaches the compounds of formula (7), wherein 2-aminophenyl carboxylic acid with aqueous ammonia solution (formula 2), followed by reaction with trimethylformate (formula 4) in sequential steps at room temperature and cooling, respectively. See page 385, Scheme 2 at the top of the page and page 388, in the left-hand column the third and fourth full paragraphs.

The differences between the reference and the instant Application are a) the solvents used in the reaction and b) the one sequential step versus Applicant's one pot reaction. a) The solvent used for the reaction, which can be found in the ammonia solutions, aqueous versus Applicant's organic solvent (preferably polar organic solvent). Ammonia can be purchased at Sigma-Aldrich in ethanol, see Aldrich reference. These two solvents are alternatively useable since the reaction may proceed with either solvent present in the reaction. b) The sole difference between the claimed process and the prior art process is that the prior art process purifies the intermediate and then proceeds to the next step, whereas applicants do the step consecutively without isolation of the intermediate. Such a variation is obvious to one of ordinary skill in the art of synthetic organic chemistry.

Applicant traverses by making several points:

1) "In another word, Applicants' claimed reaction process does not contain the intermediate of Tobe's sequential steps, and hence is distinctive over Tobe's sequential steps;"

2) "Tobe does not teach or suggest the claimed one-step process with the claimed reagents;"

3) "Tobe's two-step reactions can not be conducted in one pot"... because of the different reaction conditions required for each step; and

4) "Tobe only teaches the use of 28% aqueous ammonia solution in the first reaction step of obtaining an aminobenzamide compound from an aminocarboxylic acid compound. Tobe is

completely silent relating to the use of the ammonia in ethanol as a reaction medium in a one-pot, one-step reaction to obtain a pyrimidin-4-one compound of formula (7) from an aminocarboxylic acid compound of formula (6). Neither does any of the other cited prior art references suggest or disclose that ammonia in ethanol can be used as a reaction medium in the claimed one-pot, one-step reaction."

These points are not found persuasive. Points 1 and 2 can be argued by simply stating the claim language in the instant Application uses the word "comprising," which is open-ended language. If the claims did teach the "one-step" process, as Applicant states, this would be 102 rejection. Furthermore, since Applicant is stating this is a "one-pot" synthesis, if all the reagents and starting materials are present plus any others, Applicant's claimed reaction can occur as provided in the reference. Moreover, the claims do not read as a one-step process due to the "comprising" language. This could include addition of various reagents at any point during the reaction.

Point 3 can be argued by stating the previous sentences. The "comprising" language allows for the addition of various reagents at any point during the reaction. Thus, the reaction could go from an acidic environment to a basic environment by simply quenching.

Lastly, point 4 can be argued by using the reference Applicant cited, JP 2003-212862, see the machine translation, page 3/5, paragraph 0023, which teaches the equivalency of aqueous ammonia or ammonia in an organic solvent.

Thus, the rejection is **maintained**.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SUSANNA MOORE whose telephone number is (571)272-9046. The examiner can normally be reached on M-F 8:00-5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. James O. Wilson can be reached on (571) 272-0661. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Susanna Moore/
Examiner, Art Unit 1624